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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,671	01/16/2002	Zheng Chen	7016.02.03	5091

55379 7590 10/02/2006

LAW OFFICE OF JOHN L. ISAAC  
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LAKEWOOD, CO 80235-2309

EXAMINER
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THOMAS, ERIC W

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/050,671	<b>Applicant(s)</b> CHEN, ZHENG	
	<b>Examiner</b> Eric Thomas	<b>Art Unit</b> 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of invention I in the reply filed on 4/19/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Specification***

2. The disclosure is objected to because of the following informalities: Applicant is required to update the related applications section found on page 1 of the instant application.

Appropriate correction is required.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "12, 14" has been used to designate both electrochemical cell and anode/cathode. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

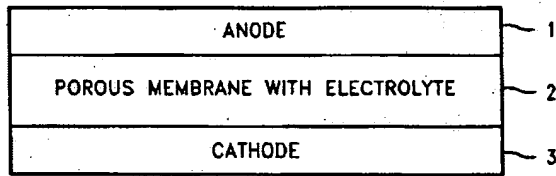
4. Claim 3 recites the limitation "said epoxy resin" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 5 recites the limitation "said epoxy resin" in line 3. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 7 recites the limitation "said epoxy resin" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jow et al. (US 5,600,535) in view of TANAHASHI et al. (JP 8-330194).



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Jow et al. disclose an electrochemical capacitor cell, said cell comprising: a cathode having a coating of an amorphous metal oxide (3), an anode having a coating of an amorphous metal oxide (1); an electrolyte soaked separator (2) disposed between said cathode and anode, first and second current collectors disposed, respectively, adjacent the outer surfaces of said cathode and anode.

Jow et al. disclose the claimed invention except for a conductive resin coating surrounding the exterior surfaces of said cathode and anode and their respective current collectors to provide an exterior packaging having rigidity and strength for said cell.

Tanahashi et al. teach the use of a conductive resin coating surround the exterior surfaces of the cathode and anode and their respective current collectors used in an electrochemical capacitor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the electrochemical capacitor of Jow et al. using the conductive resin coating surrounding the exterior surfaces of the cathode and anode and their respective current collectors as taught by Tanahashi et al., since such a

modification would provide a housing which would contain the electrolyte and protect the capacitive elements from an external environment.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishino et al. (US 4,562,511) in view of Kasahara (JP 11-340093).

Nishino et al. disclose an electrochemical capacitor cell, said cell comprising: a cathode having a coating of an amorphous metal oxide (embodiment 3), an anode having a coating of an amorphous metal oxide; an electrolyte soaked separator (19) disposed between said cathode and anode, the anode and cathode are connected to current collectors.

Nishino et al. disclose the claimed invention except for a conductive resin coating surrounding the exterior surfaces of said cathode and anode and their respective current collectors to provide an exterior packaging having rigidity and strength for said cell.

Kasahara teaches the use of an improved current collector wherein the current collector has a current collecting portion (10b) contacting the carbon electrode (2), a conductive resin coating (10a) surrounding the exterior surfaces of cathode and anode current collectors to provide an exterior package.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the capacitor of Nishino et al. using the current collector of Kasahara, since such a modification would reduce the ESR of the capacitor element.

***Allowable Subject Matter***

9. Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest (taken in combination with the other claimed features) an electrochemical capacitor comprising a fibrous preform layer covering the exterior surface thereof with said resin coating surrounding and penetrating said preform layer (claim 2); the resin coating includes fibers (claims 3-4); a plurality of cells encased in said resin coating (claim 5); and a conductive layer interposed between the exterior surface of each said cathode and anode and its respective current collector (claim 6-7).

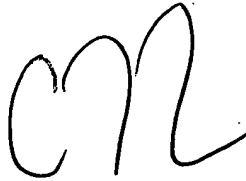
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ewt

 9/26/06  
**ERIC W. THOMAS**  
**PRIMARY EXAMINER**